



DEPARTMENT OF THE ARMY REGIONAL PERMIT 13 FOR THE SANTA CRUZ COUNTY PERMIT COORDINATION PROGRAM

SPONSORS: Santa Cruz County Resource Conservation District and U.S. Natural Resources Conservation Service

PERMIT NO.: 27564S

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

Authorized Work: This Regional General Permit (RGP) authorizes minor fill discharges into waters of the U.S. in association with implementation of projects by landowners in Santa Cruz County participating in the Santa Cruz Countywide Partners in Restoration Permit Coordination Program (Program). The Program will authorize fifteen specific restoration and conservation practices, implemented in coordination with the Santa Cruz County Resource Conservation District (RCD) and U.S.D.A. Natural Resources Conservation Service (NRCS), under the terms and conditions developed in coordination with each of the regulatory agencies. RGP 13 Attachment 1 provides a description of the practices and the maximum dimensions allowable for each under the Program. These descriptions and maximum allowable dimensions were refined in coordination with the regulatory agencies issuing approvals for the Program. Of the proposed fifteen practices, eleven directly involve a discharge within Corps jurisdiction. These practices are marked with an asterisk in RGP 13 Attachment 1. Under the proposed Program, regulatory agencies enter into programmatic agreements with the RCD and NRCS to approve these fifteen specific, standardized, conservation practices that will improve habitat and soil stability. The conservation practices are limited in size, have demonstrated a net environmental benefit, and are usually performed for erosion control or restoration in and around waterways. Landowners agree to follow designs and specifications for conservation work. Follow up and monitoring on each conservation project is done by the NRCS and the RCD.

Under this Program, the RCD and NRCS shall assist ranchers, growers, land managers, and individual property owners (Cooperators) in implementing one or more of the fifteen conservation practices on private properties in Santa Cruz County according to the terms and conditions established by the resource agencies issuing approvals for the Program. Multiple, qualifying, NRCS-approved projects may be constructed each year. The NRCS and the Santa Cruz County RCD will assist Cooperators in project design and monitor implementation and maintenance of conservation practices to ensure performance with the conditions of the Regional General Permit and the terms and conditions of other permitting agency approvals. The NRCS and RCD will follow the NRCS' Conservation Planning Process for all projects carried out under the Program. A Cooperator that works with the RCD and NRCS, and who signs a Cooperator Agreement in which they agree to follow the design and construction specifications provided in the "Project Plans and Specifications" developed in cooperation with the RCD and NRCS, will be allowed to implement the associated conservation practices without the need to seek separate Corps authorization. The NRCS and RCD ensure that the terms and conditions of the Corps Regional General Permit and the terms and conditions of the other regulatory approvals and agreements from permitting agencies are adhered to for each project implemented under the Program. RGP 13 Attachment 2 provides the description of General Protection measures developed in coordination with the regulatory agencies issuing approvals for the Program.

The projects authorized by the RGP will result in water quality improvements and enhancement of wildlife habitat, including enhancement of salmonid habitat quality and removal or modification of barriers to migration to allow for increased passage. One of the long-term goals of the Program includes the improvement of wetland functioning in the County's watersheds. Additionally, these conservation practices will be used to restore natural aquatic functions; stabilize erodible soils to prevent soil accumulation in wetlands; collect sediments before they enter waterways and wetlands; and to provide watering areas for livestock away from sensitive habitats. The practices include

improvements to access roads (to existing infrastructure), critical area plantings, installation of swales and grassed waterways to slow runoff, installation of filter strips, grade stabilization structures in gullies, fish habitat enhancements, removal and disposal of unwanted items from waterways such as abandoned cars and appliances, installation of sediment basins and associated outlets and energy dissipating structures, installation of pipelines to shift livestock to constructed water sources (existing sources) and away from streams, lakes and other sensitive habitats, and restoring and conserving rare or declining native vegetation communities by removing exotic, invasive plants and restoring native vegetation. For individual projects carried out under the RGP, total permanent (fill) impacts to waterways and wetlands may not exceed 0.5 acre and may not result in (permanent) fill of more than 0.25 acre of wetland per project.

PERMIT CONDITIONS:

GENERAL CONDITIONS:

1. The time limit for completing the work authorized ends on **April 30, 2012**.
2. Staging areas shall be on upland sites if available. Heavy equipment working in wetlands must be placed on mats or other measures must be taken to minimize soil disturbance (e.g., use of low ground pressure vehicles).
3. No discharge of dredged or fill material into waters of the United States may consist of unsuitable material (e.g., trash, debris) and material discharged must be free of toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
4. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent possible at each project site.
5. Any structure or fill authorized under this regional permit shall be properly maintained.
6. No activity authorized under this permit may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area.
7. If you discover any previously unknown historic or archeological remains while accomplishing an activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
8. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
9. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

SPECIAL CONDITIONS:

1. This Regional General Permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or a Biological Opinion (BO) under ESA Section 7 with "incidental take" provisions with which you must comply). The U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) BOs dated July 25, 2006, and July 18, 2006, (reference numbers: 1-8-04-F-01 and 151422SWR2006SR00307:JMA) respectively contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BOs. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take authorized by the BOs, whose terms and conditions are

incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BOs, where a take of the listed species occurs, would constitute an unauthorized take and it would also constitute non-compliance with this Corps permit. The FWS and NMFS are the appropriate authorities to determine compliance with the terms and conditions of their BOs and with the ESA.

2. NRCS shall notify the Corps annually each spring of that year's proposed projects to allow review and approval prior to project construction. The annual report shall list participating land owners, describe each project purpose, area affected, natural biological enhancements, and amount of yardage, cut and slope of the work. It shall list conservation benefits and any net gains in wetlands and riparian areas, describe actions taken to avoid adverse effects to listed species, and provide photo documentation of before and after site conditions for each project site. The permitting agencies may provide additional conditions on individual projects. NRCS will then incorporate these additional agency conditions into the conservation plan and engineered design for a project.
3. The Corps will have 45 days from the date of receipt of the annual report to comment on the proposed projects or add additional special conditions if necessary. If no comments are received at the end of 45 days, NRCS may presume the project is approved. Construction on projects that have received no comments may not begin until the expiration of the 45 days, unless the Corps has provided a "no comment" response prior to the end of the 45 day period.
4. Impacts for each project shall not exceed the maximum limit allowed per restoration practice as detailed in the column titled "Maximum Size of the Practice Installed" in RGP 13 Attachment 1.
5. Total permanent (fill) impacts to waterways and wetlands may not exceed 0.5 acre and may not result in (permanent) fill of more than 0.25 acre of wetland, on each project site.
6. No project will be initiated under the RGP that results in a net loss in the quality, quantity and permanence of wetland acreage and values in Santa Cruz County watersheds.
7. The "General Conditions for all Projects" as listed in RGP 13 Attachment 2 shall be followed for any practice installed under the Regional General Permit.
8. The "Environmental Protection Measures and Conditions for Specific Conservation Practices" as listed in RGP 13 Attachment 3 shall be followed for the appropriate practices installed under the Regional General Permit.
9. The NRCS will protect cultural resources to the fullest extent possible. If, during the course of installing a conservation practice, the risk of affecting cultural resources increases (e.g., if an unanticipated resource is discovered, if an unevaluated resource will be affected, or if it is determined that cultural properties will be affected in a previously unanticipated manner), the NRCS will respond immediately. This will include requesting the landowner to halt actions in areas with potential to affect cultural resources and notify the NRCS' cultural resources coordinator immediately. If human remains are uncovered, the NRCS will follow procedures established by the Native American Heritage Commission. This includes immediate cessation of work in the area and the notification of the County coroner.
10. Landowners shall agree to monitor the conservation practices, and to allow NRCS staff to monitor on-site compliance with all permit requirements, until implementation of practices is complete. Pre-construction and construction monitoring of Permit Coordination Program-sponsored conservation practices will consist of surveys and/or inspections, as needed, to ensure compliance with all permit requirements until implementation of practices is complete.
11. If a landowner and/or land manager does not carry out work in compliance with project design standards and specifications, including the previously agreed upon terms and conditions, NRCS will notify the landowner and/or land manager and work directly with them to resolve the problem. If the landowner and/or land manager still fails to comply, NRCS will notify the landowner and/or land manager that their activities are no longer

covered by the Permit Coordination Program's permits and agreements. The landowner and/or land manager will then be responsible for obtaining regulatory review and individual permits from the appropriate regulatory agencies and will be held liable for all violations. NRCS will notify the Corps of any projects that are no longer covered under the Permit Coordination Program's permits.

12. NRCS shall require that each project establish a sufficient number of photo-documentation points to evaluate the progress of the project. For each project, a site map with the photo-documentation points clearly marked will be prepared. Prior to construction, the NRCS shall photographically document the condition of the Project site. Following construction, the NRCS shall photographically document the immediate post-construction condition of the site. Pre-project photos, site maps with photo-documentation points, and post-construction photos shall be included in the annual Permit Coordination Program report to the Corps.
13. The NRCS will report the status of all projects to the permitting agencies in the form of an annual post-construction report, due January 31 of each year of the Permit Coordination Program. The report will list participating landowners, provide a description of each project, and a summary of the surface area affected, the yards of impact (as fill and/or excavation) and the slope of the work site. The report will list conservation benefits and any net gains in wetlands and riparian areas, describe actions taken to avoid adverse effects to listed species, and provide photo documentation of before project and current site conditions.
14. Post-construction monitoring of Permit Coordination Program-sponsored conservation practices will consist of erosion control inspections to determine if the system is still functioning as planned, photo-documentation, and preparation of an annual report to be submitted yearly to the resource agencies, as described below. Photographs shall be taken from staked photo-documentation points before construction and annually thereafter throughout the term of the monitoring program. All construction sites shall be inspected at least twice during the first rainy season after installation. Each site will also be inspected once at the end of the rainy season for the first 5 years following construction .

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 404 of the Clean Water Act (33 U.S.C. Section 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 C.F.R. Section 325.7 or enforcement procedures such as those contained in 33 C.F.R. Sections 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 C.F.R. Section 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

- 6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Project Types that May be Considered for Inclusion Under Santa Cruz Countywide Partners in Restoration Permit Coordination Program for Environmentally Beneficial Projects

(Projects included under the permit coordination program may not exceed any of the dimensions shown in the third column)

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
1. *Access Roads (Improvement) (560) <i>(NOTE: Access road improvements typically involve multiple installations spread out over a long reach of road.)</i>	Improvement of an existing road used for moving livestock, produce, and/or equipment to provide access for proper, property management while controlling runoff to prevent erosion and maintain or improve water quality. An example of this practice might include re-grading, outslowing, or the addition of a rolling dip to a road so that water is less erosive as it travels across the road. This practice may also be used for repair or removal of culverts from non-fish bearing ¹ streams associated with access road improvements. This practice is used only on existing roads. Some examples of practices from the California Department of Fish and Game, California Salmonid Stream Habitat Restoration Manual that could be utilized during implementation of the Access Road (Improvement) practice includes Waterbars (p. VII-96).	<p>Work performed over a maximum of 12 miles</p> <p><u>Length</u>: Average: 1,000 linear feet of work spread out over 2 miles; Max: 2,000 linear feet of work spread out over 12 miles.</p> <p><u>Width</u>: Average: 30'; Max: 30'.</p> <p><u>Area</u>: Average: 0.8 acres; Max: 1.5 acres.</p> <p><u>Volume</u>³: Average: 750 cubic yards; Max: 1,500 cu. yards (or 1,000 cu. yards in Coastal Zone Scenic Areas).</p>
2. Critical Area Planting (342)	Planting of vegetation such as trees, shrubs, vines, grasses, or legumes (see Attachments 1 and 2 for lists of preferred and prohibited species for revegetation), on highly erodible or critically eroding areas (does not include tree planting mainly for wood products). This practice is used to stabilize the soil, reduce damage from sediment and runoff to downstream areas, and improve wildlife habitat and visual resources. Plants may take up more of the nutrients in the soil, reducing the amount that can be washed into surface waters or leached into ground water. During grading, seedbed preparation, seeding, and mulching, quantities of sediment and associated chemicals may be washed into surface waters prior to plant establishment.	<p><u>Length</u>: Average: 500'; Max: 1 mile (e.g., riparian areas).</p> <p><u>Width</u>: Average: 20'; Max: 20'.</p> <p><u>Area</u>: Average: 0.25 acre; Max: 2.5 acres.</p> <p><u>Volume</u>³: Average: 200 cu. yards; Max: 1,000 cu. yards.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
3. Diversion (swales to slow runoff) (362)	Construction of a channel across a slope generally with a supporting ridge on the lower side to slow and redirect surface flow. This practice results in a reduction of sheet and rill erosion by reducing the length of slope. Sediment may also be reduced by the elimination of gullies, reducing the amount of sediment and related pollutants delivered to the surface waters. This practice may also be used to deliver water to a sediment basin or an open area where runoff can infiltrate the ground at a natural rate of flow. This practice does not result in a change in volume of flow, or flow reduction in surface waters. This practice does not involve the diversion of water from a waterway, nor in the redirection of flow to a new watershed, nor any other potential off-site impacts. This practice applies to sites where: 1) runoff damages cropland, pastureland, farmsteads, or conservation practices; 2) surface flow and shallow subsurface flow caused by seepage are damaging land; 3) runoff is in excess and available for use on nearby sites; 4) a diversion is required as part of a pollution abatement system; or 5) a diversion is required to control erosion and runoff.	<p><u>Length</u>: Average: 1,000'; Max: 2,000' (assume 10' wide and 1' deep).</p> <p><u>Width</u>: Average: 10'; Max: 10'.</p> <p><u>Area</u>: Average: 0.2 acre; Max: 0.5 acre.</p> <p><u>Volume</u>³: Average: 400 cu. yards; Max: 800 cu. yards.</p> <p><u>Flow Rate</u>: Max: 100 cubic feet per second (cfs)</p>
4. Filter Strip (393)	Installation of a strip or area of vegetation for trapping sediment, organic matter, and other pollutants from runoff and wastewater. The strip or area is situated between cropland, grazing land, or disturbed land (including forest land) and environmentally sensitive areas. Installation often requires soil manipulation to remove surface irregularities and prepare for planting. When the field borders are located such that runoff flows across them in sheet flow, coarser grained sediments are filtered and deposited. Pesticides and nutrients may be removed from runoff through infiltration, absorption, adsorption, decomposition, and volatilization thereby protecting water quality downstream. However, they may not filter out some soluble or suspended fine-grained materials, especially during heavy rain events. Filter strips may also reduce	<p><u>Length</u>: Average: 500'; Max: 2,000'.</p> <p><u>Width</u>: Average: 20'; Max: 20'.</p> <p><u>Area</u>: Average: 0.25 acre; Max: 1 acre.</p> <p><u>Volume</u>³: Average: 200 cu. yards; Max: 800 cu. yards.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	erosion on the area on which they are constructed.	
<p>*5. Fish Stream Improvement (395)</p>	<p>Improvement of a stream channel to create new fish habitat or to enhance an existing habitat. The practice is used to improve or enhance aquatic habitat for fish in degraded streams, channels, and ditches by providing shade, controlling sediment, and restoring pool and riffle stream characteristics. Pools and riffles are formed in degraded stream sections through the strategic placement of logs, root wad, or natural rocks that reduces the flow velocity through the area. Coarse-grained sediments settle, reducing the quantity of sediment delivered downstream. The dissolved oxygen content may be increased, improving the stream's assimilative capacity. This practice may also be used for removal or modification of fish barriers such as flashboard dams or logjams. The modification of flashboard dams may involve cutting a notch in the dam to allow for fish passage. Complete removal of flashboard dams would also be covered under the program.</p> <p>This practice may be used for the removal or modification of logjams that present a complete barrier to all life stages of anadromous fish passage. If the logjam does not act as a complete barrier, logjam removal may be implemented no more than two times annually under the program, but <u>only</u> if the following circumstance exists: In situations where water is actively or potentially deflecting water to a bank, threatening further erosion, bank failure, destruction of conservation practices installed to stabilize the bank, or threatening damage to life and housing, the logjam may be modified to minimize this threat.</p> <p>This practice may be used to remove culverts that pose barriers to fish passage and replacement of an existing culvert with a crossing that improves fish passage. This practice may also be used to remove hardened crossings that pose barriers to salmonid passage such as</p>	<p><u>Maximum Length:</u> 1 mile with multiple structures at multiple bank locations.</p> <p><u>Maximum dimensions for a logjam to be modified:</u> 30 ft by 50 ft (across channel)</p> <p><u>Maximum dimensions for a flashboard dam to be modified or removed:</u> 15 ft by 60 ft (across channel)</p> <p><u>Maximum dimensions for hardened crossings (fords) to be removed/replaced:</u> 15 ft by 60 ft (across channel)</p> <p><u>Maximum bridge size to be installed:</u> Max.100 ft (across stream) with 20 ft wide deck (20 ft is what the County of Santa Cruz prefers for emergency vehicles but it's more likely that most bridges installed under the permit coordination program would not exceed 16 ft in width)</p> <p>*Maximum and total area to be dewatered will not exceed 200 ft over the one mile maximum.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	<p>culverts and simple fords that do not have complicated associated resource issues, and replace them with bridges, bottomless arch culverts, or embedded culverts that do allow for fish passage.</p> <p>While most activities will occur during the summer months when most areas are dry, dewatering may be required for some projects involving the fish stream improvement practices. Dewatering a portion of a stream during construction would involve isolating the work area using temporary structures such as cofferdams and the pumping of water around the worksite in order to maintain flows downstream.</p> <p>The Fish Stream Improvement practice will be designed and implemented in accordance with the California Department of Fish and Game's <i>California Salmonid Stream Habitat and Restoration Manual</i> or in coordination with NOAA Fisheries and CDFG. Some examples of the practices that could be utilized during implementation of the Fish Stream Improvement practice include Digger Logs (p. VII-26 of the manual), Spider Logs (p. VII-27), and Log, Root Wad, and Boulder Combinations (p. VII-28).</p>	
<p>*6. Grade Stabilization Structure (410)</p> <p><i>(In non-fish bearing streams, primarily for gully repair)</i></p>	<p>Installation of a structure built into a gully to control the grade and prevent head cutting in natural or artificial channels. For the purposes of the Master Permit program, this practice will not be installed in fish bearing streams and would primarily be used for gully repair. This practice refers to rock, timber, or vegetative structures, such as a brush mattress, placed to slow water velocities above and below the structure, resulting in reduced erosion. This practice also involves earthmoving to reshape the area impacted by the gully. This will decrease the yield of sediment and sediment-attached substances and improve downstream water quality. An example of a practice from the CDFG California Salmonid Stream Habitat Restoration Manual that could be utilized</p>	<p><u>Length</u>: Average: 3 to 4 structures per 500' of gully, Max: 10 structures per 1,000' of gully.</p> <p><u>Area</u>: Average: 0.5 acres; Max: 1.5 acres</p> <p><u>Volume</u>³: Max: 30 cu. yards per structure; 300 cu. yards total.</p> <p><u>Flow Rate</u>: Max: 300 cfs in the pipe.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	during implementation of the Grade Stabilization practice is Brush Mattressing (p. VII-79).	
*7. Grassed Waterway (412)	Establishment of a natural or constructed channel that is shaped or graded to required dimensions and expected velocities, and establishment of suitable vegetation for the stable conveyance of runoff. This practice may reduce the erosion in a concentrated flow area, such as a gully. This may result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter in removing some of the sediment delivered to the waterway, although this is not typically the primary function of a grassed waterway. Grassed waterways may be used to reduce the erosive force of runoff from agricultural lands into riparian or wetland areas or into a sediment basin. Grading and seedbed preparation may result in some short-term soil loss prior to establishment of vegetative cover.	<p><u>Length</u>: Average: 1,000'; Max: 2,000'.</p> <p><u>Width</u>: Average: 20'; Max: 20'.</p> <p><u>Area</u>: Average: 0.5 acre; Max: 1 acre.</p> <p><u>Volume</u>³: Average: 1,000 cu. yards; Max: 2,000 cu. yards (except in Coastal Zone Scenic Areas where the maximum grading allowed is 1,000 cu. yards).</p> <p><u>Flow Rate</u>: Max: 150 cfs.</p>
*8. Obstruction Removal (500)	Removal and disposal of unwanted structures from waterways including cars, large appliances, and garbage (items that are anthropogenic and not natural to the system). Large objects such as cars and appliances would be removed unless their removal would result in a (net) detrimental effect. For example, cars will not be removed if the action would result in disturbance to a significant area (beyond the scope of this program), which could result if it was discovered that multiple cars were stacked behind one another under a stream bank. Structures would be removed when the stream channel is dry or during the lowest flows to minimize impacts. While most activities will occur during the summer months when most areas are dry, dewatering may be required for some projects involving removal of large objects such as cars and appliances. Dewatering a portion of a stream during construction would involve isolating the work area using temporary structures such as cofferdams	<p><u>Length</u>: Max: 50'.</p> <p><u>Area</u>: Average: 10' x 15'; Max: 0.2 acre.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	and the pumping of water around the worksite in order to maintain flows downstream.	
*9. Pipeline (516)	Use of a pipeline for conveying water from an existing source of supply to points of its use for livestock; to shift livestock to constructed waters sources and away from streams and lakes. This practice is designed to reduce bank erosion, sediment yield, and manure entering watercourses. Occasionally, a pipeline may cross streams or water courses. The maximum livestock pipeline diameter would be 3 inches. While most activities will occur during the summer months when most areas are dry, dewatering may be required for some projects involving installation of a pipeline. Dewatering a portion of a stream during construction would involve isolating the work area using temporary structures such as cofferdams and the pumping of water around the worksite in order to maintain flows downstream.	<p><u>Length</u>: Average: 50'; Max: 200' through riparian areas (includes 50' on each bank and across a stream or gully), and up to 10,000' through the upland areas. Maximum livestock pipeline diameter would be 3 inches.</p> <p><u>Width</u>: Average 15'; Max: 20'.</p> <p><u>Area</u>: Max: 4,000 sq. ft. through riparian areas/crossing streams⁶</p> <p><u>Volume</u>³: Average: 15 cu. yards; Max: 50 cu. yards through riparian areas⁷.</p> <p><u>Pressure</u>: Max: 300 psi.(Highest capacity for a pipeline would not exceed 300 pounds per square inch)</p>
*10. Restoration and Management of Declining Habitats (643)	Restoring and conserving rare or declining native vegetated communities and associated wildlife species. This practice is used to restore land or aquatic habitats degraded by human activity; provide habitat for rare and declining wildlife species by restoring and conserving native plant communities; increase native plant community diversity; management of unique or declining native habitats (see Attachments 1 and 2 for lists of preferred and prohibited species for revegetation). This practice may be used to remove invasive plant species in sensitive resource areas in order to improve the quality of the adjacent aquatic habitat.	<p><u>Length</u>: Average: 500'; Max: 1 mile.</p> <p><u>Area</u>: Average: 0.25 acre; Max: 2.5 acres.</p> <p><u>Volume</u>³: Average: 50 cu. yards; Max: 500 cu. yards.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
<p><i>*11. Sediment Basins (350) [with or without water control (638)]</i></p>	<p>Construction of basin(s) to collect and store debris or sediment. Sediment basins will trap sediment, sediment associated materials, and other debris and prevent undesirable deposition on bottomlands and in waterways and streams. Basins are generally located at the base of agricultural lands adjacent to natural drainage or riparian areas. Sediment basins shall not be constructed in a stream channel or other permanent water bodies. This practice may also involve designing the sediment basin to control water volumes leaving a site and releasing the water at a natural flow rate. If water control were recommended by the NRCS, an earth embankment or a combination ridge and channel design constructed across the slope and minor watercourses would be implemented to form a sediment trap and water detention basin. The practice does not treat the source of sediment but provides a barrier to reduce degradation of surface water downstream. Due to the detention of runoff in the basin, there is an increased opportunity for soluble materials to be leached toward the ground water. Basins may also increase groundwater recharge. The design of spillways and outlet works will include water control structures to prevent scouring at discharge point into natural drainage.</p> <p>Only the outfall structures associated with these basins will result in deposition of fill within Waters of the U.S.</p>	<p><u>Area</u>: Average: 0.1 acre; Max: 0.5 acre.</p> <p><u>Volume</u>³: Average: 400 cu. yards; Max: 2,000 cu. yards (compacted embankment); in Coastal Zone Scenic Areas no more than 1,000 cu. yards total grading volume.</p> <p><u>Impoundment Volume</u>: Average: 0.5 acre-foot; Max: 2 acre-feet.</p> <p><u>Impoundment Structure</u>: Average: 6 ft embankment measured from the lowest point in the basin to the spillway at a 2:1 maximum slope; Max: 6 ft – 10 ft embankment measured from the lowest point in the basin to the spillway at a 2:1 maximum slope.</p>
<p><i>*12. Stream bank Protection (580)</i></p>	<p>Use of vegetation or structures to stabilize and protect banks of streams, lakes, or estuaries against scour and erosion. “Bioengineered” solutions using vegetation and soft materials (as opposed to concrete and rip rap, for example) are the preferred options where conditions are favorable for their use. The banks of streams and water bodies are protected by vegetation to reduce sediment loads causing downstream damage and pollution and to improve the stream for fish and wildlife habitat as well</p>	<p><u>Length</u>: Vegetation Average: 200’; Vegetation Max: 2,000’. Rock Max: 200’ contiguous rock protection and 500’ of non-contiguous protection over 2,000’ of bank.</p> <p><u>Width</u>: Vegetation Average: 20’; Vegetation Max: 50’. Rock Average: 4’; Rock Max: 5’.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	<p>as protect adjacent land from erosion damage. Examples of this practice may include willow sprigging, brush mattresses, and live vegetative crib walls. This practice can be applied to natural or excavated channels where the stream banks are susceptible to erosion from the action of water or debris or to damage from livestock or vehicular traffic. The streambed grade must be controlled before most permanent types of bank protection can be considered feasible. Some examples of practices from the California Department of Fish and Game's <i>California Salmonid Stream Habitat Restoration Manual</i> that could be utilized during implementation of the Streambank Protection practice include Log Cribbing (p. VII-68), Live Vegetative Crib Wall (p. VII-69), Logbank Armor (p. VII-70), Riprap (p. VII-65), Native Material Revetment (p. VII-75), Willow Sprigging (p. VII-77), Brush Mattressing (p. VII-77), and Trenching (p. VII-80). While most activities will occur during the summer months when most areas are dry, dewatering may be required for some projects involving implementation of streambank protection measures. Dewatering a portion of a stream during construction would involve isolating the work area using temporary structures such as cofferdams and the pumping of water around the worksite in order to maintain flows downstream.</p>	<p><u>Area</u>: Average Vegetation: 0.1; Max Vegetation: 2.5 acre. Rock Protection Max: 0.1 acre</p> <p><u>Volume</u>³: Average Vegetation: 500 cu. yards; Max Vegetation: 4,000 cu. yards⁹ (or 1,000 cu. yards in all Coastal Zone Scenic Areas). Average Rock: 100 cu. yards; Max Rock: 300 cu. yards.</p> <p><u>Flow Rate</u>: Vegetation Max: 2,000 cfs instream.</p>
<p>*13. Stream Channel Stabilization (584)</p>	<p>Stabilization of the channel of a stream with suitable structures. "Bioengineered" solutions using vegetation and soft materials (as opposed to concrete and rip rap, for example) are the preferred options where conditions are favorable for their use. This practice applies to stream channels undergoing damaging aggradation or degradation that cannot be reasonably controlled with upstream practices (establishment of vegetative protection, installation of bank protection, or by the installation of upstream water control measures). The design and installation of grade stabilization structures produce a stable streambed favorable to wildlife and riparian growth. The Master Permit program</p>	<p><u>Length</u>: Average: 200'; Max: 2,000'.</p> <p><u>Width</u>: Average: 20'; Max: 20'.</p> <p><u>Area</u>: Average: 0.1 acre; Max: 1 acre.</p> <p><u>Volume</u>³: Average: 200 cu. yards; Max: 1,500 cu. yards (1,000 cu. yards in Coastal Zone Scenic Areas).</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	<p>does not cover projects that involve installation of grade stabilization structures in fish bearing streams.</p> <p>In non-fish bearing streams, this practice may be utilized to remove accumulated sand or sediment that have caused the channel to become plugged due to a large storm event or bank failure. This practice would not be used in fish-bearing streams or for routine maintenance involving dredging of a waterway. This practice would be used to remove sediment that has accumulated, primarily as a result of a catastrophic event such as a flood, and would only be used once at a given location under this program.</p> <p>While most activities will occur during the summer months when most areas are dry, dewatering may be required for some projects involving installation of the stream channel stabilization practices. Dewatering a portion of a stream during construction would involve isolating the work area using temporary structures such as cofferdams and the pumping of water around the worksite in order to maintain flows downstream.</p>	<p><u>Flow Rate</u>: Max: 400 cfs.</p>
<p><i>*14. Structure for Water Control (587)</i></p>	<p>Installation of a structure in an irrigation, drainage, or other water management system, including streams and gullies, that conveys water, controls the direction or rate of flow, or maintains a desired water surface elevation, such as culverts, pipe drops or chutes within gullies, debris screens, etc. Structure for water control is used to replace or retrofit existing culverts that are either not functioning properly or are a barrier to fish passage. The placement of new culverts, when environmentally beneficial, is also covered. By controlling the velocity of water running through an area, this practice reduces erosion and prevents down cutting of stream channels. Culverts will be consistent with California Department of Fish and Game's "Culvert Criteria for Fish Passage" (April 2003) and National Marine Fisheries Service Southwest Region's "Guidelines for Salmonid Passage as Stream</p>	<p><u>Flow Rate</u>: Max: 40 cfs.</p>

Practice Name	Description	Maximum Size of the Practice Installed (and additional limitations)
	Crossings” (September, 2001).	
15. Underground Outlets (620)	Installation of a conduit beneath the surface of the ground to collect surface water and convey it to a suitable outlet. This practice is typically, although not always, associated with a sediment basin (with or without water control). Excess surface water generated by farmland on steep terrain can be collected and conveyed to a sediment basin by installing pipe safely buried underground. Location, size, and number of inlets are determined to collect excess runoff and prevent erosive surface flow. This runoff is then discharged at sediment basin where high velocity runoff is calmed and suspended sediment is trapped prior to releasing water into natural drainage channel. The basin is designed to release water at a natural rate of flow.	<p><u>Length</u>: Max. in Riparian Areas: 50’.</p> <p><u>Width</u>: Max. in Riparian Areas: 20’.</p> <p><u>Area</u>: Max. in Riparian Areas: 1,000 sq. ft.</p> <p><u>Volume</u>³: Max. in Riparian Areas: 10 cu. yards¹¹.</p> <p><u>Flow Rate</u>: Max. in Riparian Areas: 60 cfs.</p>

1. A “fish-bearing stream” is defined as a stream located within the range of the listed species (Central California Coast (CCC) Evolutionarily Significant Unit (ESU) Coho, the CCC steelhead, and South Central Coast ESU Steelhead) and/or designated critical habitat for these salmonids. The County of Santa Cruz and CDFG fisheries experts prepared a GIS-based summary of the existing information on salmonid distribution in Santa Cruz County streams “Steelhead and Coho Salmon Distribution”, County of Santa Cruz, May, 2004. The NRCS and RCD will utilize this map, and any subsequent updates to it, during the initial project assessment to determine if the project is taking place in a fish-bearing stream.
2. Dimensions refer to actual area of improvement.
3. Volume of soil disturbed, based on practice installation and representing the volume of soil excavated and used as fill or removed from site, or soil imported as fill.
4. The "ordinary high water mark" on non-tidal rivers is defined by the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas. Some indicators of the ordinary high water mark include water staining, shelving, and evidence of debris, among other potential indicators.
5. Actual objects rarely exceed 10 ft. x 15 ft. Access to an object may involve disturbance of up to 50' in length. It is difficult to estimate the total number of separate objects to be removed from a stream. Maximum disturbance per project is limited to .2 acres.
6. Area of practice includes a 100' stream width with 50' on either side of stream (total length 200') and a 20' wide potential work area for equipment.
7. Volume of soil is based on a 2' wide trench over 200' buried to a depth of 3'

8. For vegetation treatments, soil disturbance is assumed to be a maximum of 700' of 2,000' maximum reach. The average depth of soil grading (cut or fill) is 3'.
9. Numbers provided for rock armoring refer to actual areas and volume of rock placed only. Total soil disturbance limits are same as for vegetative treatments since remainder of work area will be vegetated. Rock placed would be used at the toe of the bank in conjunction with bioengineering techniques.
10. Area of practice within riparian area includes a 50' length and a 20' wide work area for equipment. Volume of soil is based on a 2' wide trench over 50' with pipe buried to an average depth of 2'.

Universal Restrictions on Projects Carried out Under the Permit Coordination Program:

1. The County and Coastal Commission approvals do not apply to projects conducted within Coastal Commission's retained coastal permitting jurisdiction (e.g., all State tidelands, including any lands lying below the mean high tide line, submerged lands, filled areas that previously were below the mean high tide line, coastal lagoons/estuaries, public trust lands, etc.). Any qualifying environmental enhancement projects in these areas, while encouraged, shall require separate Coastal Commission approval.
2. Per conditions developed in coordination with U.S. Army Corps of Engineers, total permanent (fill) impacts to waterways and wetlands may not exceed more than 0.5 acre and may not result in (permanent) fill of more than 0.25 acre of wetland.
3. Per RWQCB requirements, soil disturbance of one acre or greater may require a Central Coast Regional Water Quality Control Board (RWQCB3) stormwater permit. The NRCS and RCD will contact the RWQCB3 on a case by case basis.

RGP 13 Attachment 2. General Project Conditions for the Santa Cruz Countywide Partners in Restoration Permit Coordination Program

The intent of the proposed permit coordination program and the associated conservation practices is to reduce erosion and sedimentation in Santa Cruz County watersheds and thereby improve water quality, the health of the natural resources and agricultural productivity. However, any activity that involves work in an area with sensitive resources, no matter what the intent, has the potential to negatively affect those resources without careful planning. The SCCRCD, the NRCS, and the participating regulatory agencies have developed the following general measures that are intended to avoid or reduce to less than significant the potential adverse effects of the actions to be carried out under the program. The following measures will be used when designing and implementing projects under the permit coordination program to avoid or minimize the potential impacts of the conservation practices on the natural and cultural resources, plants, animals and sensitive habitat in the watershed. In addition to the NRCS Conservation Planning Process, described below, that ensures NEPA compliance and sound decision-making in conservation planning, the Santa Cruz Countywide Permit Coordination Program establishes additional measures to ensure projects meet the requirements of regulating agencies.

GENERAL PROTECTION MEASURES

Training and Education of Staff, Client, and Contractor

1. NRCS and SCCRCD training in the Capitola office shall clearly stipulate the special conditions issued in the final agency approvals for the proposed Program. All NRCS and SCCRCD staff that will be working on the permit coordination program (including NRCS staff from the Salinas Area Office) will participate in the training. The NRCS and SCCRCD will administer the program using a manual that will be developed once all of the permits and approvals have been issued to be entitled *Procedures for Complying with Multiple Permits: A Guide for Conservation Planners*, a manual that will be designed specifically for the permit coordination program. The guidebook will create a process for ensuring individual projects qualify for the program; lists conservation practice selection, design, and implementation criteria and conditions required by the agencies in their individual permits; provides information on endangered species habitat; and details the monitoring and reporting requirements of the program.
2. *Pre-Construction Meeting with Cooperator and Project Workers:* Prior to the onset of activities that result in the disturbance of habitat or individuals of any listed species, all project workers including NRCS and SCCRCD staff and growers, shall be given information on the listed species in the project area, a brief overview of the species' natural history, the protection afforded the species by the Endangered Species Act, conditions of any approvals granted by the resource agencies, and the specific protective measures to be followed during implementation of the practices. Videos, brochures, books, and briefings may be used in the educational program, provided qualified NRCS or SCCRCD staff is on hand to answer questions.

Temporal Limitations on Construction

3. The timing of project construction shall take into consideration wildlife usage in the project area. The construction season for activities carried out under the proposed Program shall be limited to between June 15 and October 15. Exceptions and/or further restrictions to this general timeframe include:
 - Revegetation may continue between October 15 and November 15, (some earthmoving associated with preparation of the site for revegetation may occur within this time frame, but only as necessary for revegetation efforts).
 - Work in upland areas may begin on April 15.
 - If working within 200 feet of established riparian vegetation (or other special status bird potential nesting habitats) and/or if constructing a sediment and/or water control basin, work may not begin until after August 1. If construction must occur during this period, a qualified individual approved by United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Game (CDFG) shall conduct pre-construction surveys for bird nests or bird nesting activity in the project area. If any active nests or nesting behaviors are found (for species other than starlings and house sparrows), an exclusion zone of 75 feet shall be established to protect nesting birds (200 ft. for raptors) and maintained until the qualified individual (approved by USFWS and/or CDFG) verifies that birds have fledged or nest is abandoned. If any listed or sensitive bird species are identified, CDFG must be notified prior to further action. Take of active bird nests is prohibited.
 - If suitable habitat for the California red-legged frog, California tiger salamander or the Santa Cruz long-toed salamander occurs in the project area, construction activities shall begin after July 1.
 - If potential habitat for the marbled murrelet occurs in the project area, work shall either begin after September 15 or the NRCS/SCCRCD shall implement sound reduction measures to ensure that activities do not significantly raise noise levels above ambient levels.
 - If potential habitat for the Mount Hermon June beetle is present in the project area, construction activities shall begin after August 15 (unless USFWS gives prior approval to the NRCS/RCD in response to their pre-construction notification to begin work earlier than August 15).
 - If least Bell's vireos are discovered in Santa Cruz County during the life of the Program and are potentially present in the project area, construction activities shall begin after August 31 (Note: USFWS would notify NRCS/RCD if least Bell's vireo are discovered in Santa Cruz County during the life of the Program).

4. Work beyond the allowed construction season end date may be authorized following consultation with CDFG, USFWS, United States Army Corps of Engineers (USACOE), National Oceanic and Atmospheric Administration (NOAA) Fisheries, and Santa Cruz County. Additional erosion control measures, as described below under *Conditions for Erosion Control*, shall be implemented for work conducted during the winter period (generally defined as October 15 through April 15). These measures shall be complete and in place by October 15.
5. Where habitat for other Federal and/or State listed species not addressed above is identified on and/or adjacent to the project work site, construction and activities that may disturb the breeding, feeding, mating and sheltering of these species shall be limited to the maximum extent feasible to avoid potential impacts.

Limitation on Earthmoving and Vegetation Removal (Site Disturbance)

6. Disturbance to existing grades and vegetation shall be limited to the actual site of the conservation project and necessary access routes. Vistas from public roads and vista points shall be protected by minimizing disruption of landforms and aesthetic character caused by grading operations and/or vegetation. In many cases, project activities will utilize existing staging areas. In areas where new staging areas must be created, the size of the staging area including access roads shall be less than 0.25 acres.
7. Finished grades shall not be steeper than 2:1 side slopes unless pre-construction condition is so steep that site conditions prohibit a 2:1 slope on the final grade. Placement of temporary access roads, staging areas, and other facilities shall avoid and limit disturbance to habitat as much as possible.
8. Even though some authorized practices have grading limits greater than 1,000 cubic yards, in no case shall grading amounts exceed 1,000 cubic yards in areas within the Coastal Zone designated as Scenic Areas by the Santa Cruz County Local Coastal Plan.
9. Installed practices shall be made to look as natural as possible and aesthetically pleasing when visible in the public viewshed (by using curvilinear shapes, natural undulations matching the surrounding landform, avoiding hard/constructed structures, using endemic vegetation, etc.).
10. Disturbance of native shrubs, woody perennials or tree removal on the stream bank or stream channel shall be avoided or minimized to the fullest possible extent. If trees over 6" dbh (diameter at breast height) are to be removed, they shall be replaced at a 3:1 ratio and maintained and monitored until established (unless the species readily replaces itself, e.g., Alder).
11. If riparian vegetation will be disturbed, it shall be replaced with similar and/or native riparian species (see discussion below under *Revegetation and Removal of Exotic Species and Revegetation of the Project Area and Removal of Exotic Plants*).

12. As much as possible, project activities shall avoid thinning out stands of riparian vegetation to minimize potential for increased cowbird predation and minimize loss of canopy cover. If vegetation removal is required in or around stands greater than 0.5 acres, riparian vegetation shall be cleared by hand, leaving as much as possible of the root wad and base of plants intact (unless the project involves removal of exotic invasives such as *Arundo donax* or similar exotics that reproduce from cuttings or resprout). During or following completion of construction, poles and branches shall be replanted on banks. Subsequent maintenance of bio-technical plantings associated with implementation of the conservation practices may include hand labor to control spread outward of intended location (willows spreading into stream channel or cropped areas) or to maintain desired size (mowing of grasses to promote growth, pruning of willows to encourage dense cover rather than open woodland for bank protection, etc.).
13. If potential wetlands are identified in the project area, wetland delineations shall be performed during the site evaluation stage of planning to assist in avoiding impacts to wetlands. The methodology for conducting delineations under the proposed program has been developed in coordination with the U.S. Army Corps of Engineers. For potential wetlands in the Coastal Zone, the Coastal Commission's definition of a wetland shall be used to avoid potential impacts¹.
14. Implementation of practices shall minimize all potential contributions of sediment to waterways. To the greatest extent possible, excavated materials shall be re-integrated on site. In the rare situations where excavated material is not used in the implementation of the practice it shall be removed and placed at sites that are not within riparian areas, wetlands, and/or the federally identified floodway and/or floodplain. Any fill placed within the one hundred year floodplain shall be placed in a manner necessary to ensure there will be no rise in the base flood elevation and no flood related off site impacts. This "no rise" condition shall be verified by a registered civil engineer.
15. Upon completion of grading, slope protection of all disturbed sites shall be provided prior to the end of the construction season through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock (where the preference is for "soft" materials, such as vegetation, woody debris, etc., as opposed to "hard" materials, such as concrete, gabions, large rock, etc.).

¹ The Coastal Commission considers a wetland to be any area that is wet enough long enough to support a preponderance of hydrophytic vegetation or to result in soil that is predominantly hydric. In other words, only one of the three primary indicators of wetlands need be demonstrated for an area to be identified as a wetland (California Code of Regulations, Section 13577).

Limitations on Construction Equipment

16. The NRCS and SCCRCD shall ensure that the use and/or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into waters of the state (Fish and Game Code 5650). All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
17. All excavation and grading activities shall be scheduled for, and will occur during, dry weather periods.
18. A contained area shall be designated for equipment storage, short-term maintenance, and refueling. It shall be located at least 100-feet from all water bodies. If site conditions (property size) make this 100-foot distance infeasible, these activities shall occur at the maximum distance possible from aquatic areas.
19. Vehicles shall be inspected for leaks and repaired immediately.
20. Leaks, drips and other spill shall be cleaned up immediately to avoid soil or groundwater contamination.
21. Major vehicle maintenance and washing shall be done in a manner that protects the environment (at a minimum on a paved surface where all wash water, drippings, runoff, etc. is collected and properly disposed, and preferably offsite).
22. All spent fluids (including motor oil, radiator coolant, and/or other fluids) and used vehicle batteries shall be collected, stored, and recycled as hazardous waste off site.
23. All construction debris and sediments (if sediments are not incorporated on site) shall be properly disposed. Plans shall indicate the approved disposal site.
24. Dry cleanup methods (i.e. absorbent materials, cat litter, and/or rags) shall be used whenever possible. If water is used, the minimal amount required to keep dust levels down is used.
25. Spilled dry materials shall be swept up immediately.
26. All questionable motor oil, coolant, transmission fluid, and hydraulic fluid hoses, fittings, and/or seals on construction equipment shall be replaced. All mechanical equipment shall be inspected on a daily basis to ensure there are no motor oil, transmission fluid, hydraulic fluid, and/or coolant leaks. All leaks shall be repaired in the equipment staging area or other suitable location (away from watercourses) prior to resumption of construction activity.
27. Hydraulic fluids in mechanical equipment working within the active stream channel shall not contain organophosphate esters.

28. During construction the operator shall not dump any trash and/or construction debris into the wetted channel; all trash and/or construction debris shall be collected and properly disposed.
29. During the project activities, all trash and food that may attract potential predators of salmonids (e.g. raccoons, piscivores, etc.) shall be properly contained, removed from the work site, and disposed of daily.
30. When working in and/or near fish-bearing streams², or their tributaries, oil absorbent and spill containment materials shall be located on site when mechanical equipment is in operation. If a spill occurs, (1) no additional work shall occur in-channel until mechanical equipment has been inspected and the leak has been prepared, (2) the spill has been contained, and (3) the CDFG and NOAA Fisheries are contacted to evaluate the impacts of the spill.
31. Heavy equipment shall not be used in flowing or standing water, except to cross a stream or pond to access the work site. In fish-bearing streams or their tributaries, if it is necessary to repeatedly cross the stream (i.e. more than once prior to and once following completion of construction activities) with heavy equipment to access a work site, a temporary culvert crossing with clean gravel backfill, or other appropriate temporary crossing structure shall be installed and utilized.
32. When possible, NRCS/SCCRCD shall use existing ingress or egress points and/or perform work from the top of the creek banks. Use of heavy equipment shall be avoided in a channel bottom with rocky or cobbled substrate. If access to the work site requires heavy equipment to travel on a rocky or cobbled substrate, a rubber tire loader/backhoe is the preferred vehicle. Only if this option has been determined infeasible shall the use of tracked vehicles be allowed.
33. The amount of time this equipment is stationed, working, or traveling within the creek bed shall be minimized. When heavy equipment is used, woody debris and vegetation shall be replaced to a similar density (see *Revegetation of the Project Area and Removal of Exotic Plants* discussion below). No staging shall occur in or directly adjacent to wetlands. If it is not feasible to completely avoid movement of construction vehicles through wetlands, whenever possible rubber tired vehicles shall be used or a protective mat shall be laid down prior to moving across these areas.

² A “fish-bearing stream” is defined as a stream located within the range of the listed species (Central California Coast (CCC) Evolutionarily Significant Unit (ESU) Coho, the CCC steelhead, and South Central Coast ESU Steelhead) and/or designated critical habitat for these salmonids. The County of Santa Cruz and CDFG fisheries experts prepared a GIS-based summary of the existing information on salmonid distribution in Santa Cruz County streams “Steelhead and Coho Salmon Distribution”, County of Santa Cruz, May, 2004. The NRCS and RCD will utilize this map during the initial project assessment to determine if the project is taking place in a fish-bearing stream.

Revegetation of the Project Area and Removal of Exotic Plants

34. The project area vegetation shall be restored to pre-construction condition or better (including as directed by project specific success criteria), and shall be maintained until this goal and/or project specific success criteria have been met and plants have become established.
35. Any stream bank area left barren of vegetation as a result of the implementation or maintenance of the practices shall be restored by seeding, replanting, or other agreed upon means with native trees, shrubs, and/or grasses prior to November 15 of the project year. Soil exposed as a result of construction, soil above rock riprap, and interstitial spaces between rocks shall be revegetated by live planting, seed casting, mulching or hydroseeding with non-invasive grass species prior to the close of the construction season (See Attachment 1 for full list of preferred species for revegetation).
36. If native vegetation is disturbed during project implementation, the native plant community shall be restored to pre-construction condition or better.
37. Native plants characteristic of the local habitat type shall be the preferred alternative for revegetation, however non-invasive non-native species may be used if determined, during project planning, to be more feasible and/or resource protective (see Attachment 1 for the full list of approved native and non-native plant species and Attachment 2 for prohibited species). If the native local ecotype is not commercially available, plants of the same species but different ecotype may be used, unless that species is identified as being susceptible to genetic, pathogen or insect contamination. If the native local ecotype is not commercially available and/or that species is identified as susceptible to genetic, pathogen or insect contamination, another native species may be used in its place. Revegetation of a native community may not occur if there is a concern that nursery stock will introduce diseases into a susceptible community and/or if the community itself can regenerate (e.g. Alders). In this case, an annual grass species may be used for one-year erosion control (see Attachment 1 for full list of approved species for use in revegetation efforts).
38. Inspections for the purpose of assessing the survival and growth of revegetated areas and the presence of exposed soil shall be conducted by the NRCS/SCCRCD until vegetation is established and the project is functioning as intended, and success criteria have been met. Revegetation success shall be documented in the Annual Report provided to the agencies each year. If the status reviews reveal that the vegetative plantings are not becoming well established an adaptive management plan that provides erosion control and habitat value at least equivalent to that which existed on the site prior to the project, and which considers cost and feasibility, shall be implemented.-
39. The spread or introduction of invasive plant species shall be avoided to the maximum extent possible by avoiding areas with established native vegetation during project activities wherever possible, restoring disturbed areas of native communities with native species where appropriate (as described above), and post-project monitoring and control

of invasive species being treated as part of the project. Removal of invasive exotic species shall be strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling, brush raking) of exotics shall be done in preparation for establishment of plantings. To the greatest extent possible, vegetation shall be removed by hand. To the extent possible, revegetation should be implemented at the same time removal of exotic vegetation occurs. If *Arundo donax* (or similar exotics that reproduce from cuttings) is removed, cuttings shall be disposed of in a manner that will not allow re-establishment to occur and will not expose other areas to cuttings.

Conditions for Erosion Control

40. Earthmoving activities shall be completed prior to October 15. Work beyond October 15 (with the exception of revegetation until November 15) shall be specifically authorized in advance by the participating agencies. All inactive areas (defined as a five-day period) shall have all necessary soil stabilization practices in place two days after identification of inactivity and/or before a rain event, whichever comes first. All erosion control shall meet specifications in County of Santa Cruz Erosion Control Ordinance Chapter 16.22.
41. Erosion control and sediment detention devices shall be incorporated into the project design and implemented at the time of construction. These devices shall be in place prior to October 15 and the onset of rains for the purposes of minimizing fine sediment and sediment/water slurry input to flowing water, and of detaining water to retain sediment on-site. These devices shall be placed at all locations where the likelihood of sediment input exists. Sediment collected in these devices shall be disposed of away from the collection site and outside riparian areas and flood hazard areas.
42. Streambanks, ground and/or soil (except for soil in agricultural fields) exposed as a result of construction, and soil above toe-rock shall be revegetated by live planting, seed casting, or hydroseeding prior to November 15 of the project year.
43. All debris, sediment, rubbish, vegetation and/or other material removed from waterway shall be removed to a location where they shall not re-enter the waters of the state including wetlands.

Limitations on Work in Streams and Permanently Poned Areas

44. If it is necessary to conduct work in or near a live stream, the workspace shall be isolated from flowing water to prevent sedimentation and turbidity. In those specific cases where it is deemed necessary to work in a flowing stream/creek, all the flowing water shall be temporarily diverted around the work site to maintain downstream flows during construction. Any temporary dam or other artificial obstruction constructed shall only be built from materials such as sandbags or clean gravel that will cause little or no siltation. Cofferdams and any stream diversion systems shall remain in place and functional throughout the construction period. If the cofferdams and/or stream diversion fail, they shall be repaired immediately. When construction is completed, the flow diversion structure shall be removed as soon as possible in a manner that shall allow flow to resume with the least disturbance to the substrate. If dewatering in a fish-bearing stream is

proposed as part of a project implemented under the permit coordination program, the NRCS/SCCRCD shall comply with the terms and conditions outlined in the Biological Opinion issued for the Program, and any subsequent conditions, issued by NOAA Fisheries for this project.

45. No creosote treated timbers shall be used for instream structures. No gabions or concrete shall be used in fish bearing streams. In non-fish-bearing streams they may be used above the high water mark only. Poured concrete shall be excluded from the wetted channel for a period of 30 days after it is poured. During that time the poured concrete shall be kept moist, and runoff from the concrete shall not be allowed to enter a live stream. Commercial sealants may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is dry.
46. The implementation and maintenance of projects shall not result in sediment delivery to a clean bottom of stream channel. A “clean” bottom is characterized by natural stream substrate (cobbles, gravel and small stones or similar to background conditions).
47. If the substrate of a seasonal pond, creek, stream or water body is altered during work activities and the alteration is not the goal of the practice being implemented (i.e. channel stabilization), it shall be returned to approximate pre-construction conditions after the work is completed, unless NOAA Fisheries or CDFG requests during their annual pre-construction review of projects that other measures be implemented.
48. All debris, sediment, rubbish, vegetation, and/or other material removed from the channel banks, channel bottom, and/or sediment basins shall be removed to a location where they shall not re-enter the waters of the state. All petroleum products, chemicals, silt, fine soils, and/or any substance or material deleterious to fish, plant, or bird life shall not be allowed to pass into, or be placed where it can pass into the waters of the State.
49. Wetlands shall only be disturbed when part of a project that will enhance the value of the wetland.
50. No project shall divert water flow from one watershed into another.
51. Any fill moved and/or placed within the one hundred year floodplain (i.e., FEMA Zone A) shall be accomplished in a manner to ensure that the flood capacity of the stream is not altered (i.e. downstream properties would not be threatened by a higher likelihood of flooding). No fill shall be placed in the flood hazard area (i.e., FEMA Zones A or V or Floodway) unless it is accompanied by an analysis (by a Registered Civil Engineer) showing that there shall be no rise in the base flood elevation and no off-site impact. Such fill includes footings, supports, approaches, and other elements of bridges that are below the base flood elevation (BFE), as well as materials placed to protect those elements, such as rip-rap or concrete aprons.
52. Projects carried out under the Permit Coordination Program shall not expose people or structures to a significant risk of loss, injury or death. Practices that include impoundment

of water shall be limited in size (embankment height and volume) and designed to meet geo-technical and engineering standards and regulations.

Limitations on use of Herbicides

53. Except as noted below, no pesticides or soil amendments shall be used in the streambed or bank to hasten or improve the growth of critical area plantings. Soil amendments shall only be used when the establishment of new plants is prohibited by poor soil conditions that cannot support new plantings. In most circumstances, organic amendments shall be used to ensure successful establishment of restoration vegetation associated with the practices. In situations where organic amendments will not guarantee adequate establishment of restoration vegetation, application rates for non-organic soil amendments shall be based on soil nutrient testing and shall utilize slow release or split applications to minimize leaching or runoff into water bodies.
54. Where it is necessary to use herbicides to control established stands of exotics or to control the invasion of exotics into restoration plantings, the herbicides must be applied according to registered label conditions. Herbicides must be applied directly to plants and may not be spread upon any water or where they can leach into waterways in subsequent rains. Herbicides may be applied to control established stands of non-native species including *vinca*, ivy, and brooms. When herbicides are used near waterways an approved glyphosphate-based herbicide that is safe to use in or near aquatic habitats would be utilized.

RGP 13 Attachment 3. Environmental Protection Measures and Conditions for Specific Conservation Practices

Access Road (Improvement)

1. Road improvements in Santa Cruz County are modeled on the “Handbook for Forest and Ranch Roads: A Guide for planning, designing, constructing, reconstructing, maintaining and closing wildland roads,” by William Weaver and Danny Hagens. This manual contains descriptions of sound methods and designs to improve and maintain rural roads. Proper road planning, construction and maintenance of roads can correct problems associated with poor road placement and design that cause excess runoff, and erosion leading to many kinds of problems including polluted water supplies, increased flooding, landslides, destruction of fish habitat, and loss of vegetation and soil.

Critical Area Planting and Restoration and Management of Declining Habitats

2. When implementing or maintaining a critical area planting above the high water line, a filter fabric fence, fiber rolls and/or straw bales shall be utilized, if needed, to keep sediment from flowing into the adjacent water body. When vegetation is sufficiently mature to provide erosion control, it may be appropriate to remove the fence, fiber rolls and/or rice or straw bales. Periodic review by NRCS/SCCRCD shall occur until the critical area planting is established to control erosion.

Diversion

3. This practice may not result in a change in volume of flow, or flow reduction in surface waters. This practice does not involve the diversion of water from a waterway.

Grade Stabilization Structure

4. This practice will not be used in fish-bearing streams and will primarily be used for the repair of gullies. Construction and maintenance of any practice that results in a change in volume of flow in streams that support a fishery are not covered under this program. Construction and maintenance of Grade Stabilization Structures in streams or creeks that support a fishery are not covered under this program. Projects seeking to implement conservation practices in those circumstances must seek individual permits from appropriate public agencies.
5. Grouted rock may be used for implementation of the Grade Stabilization practice at the head of gullies if prior approval is given by the RWQCB. Use of grouted rock will be minimized. If the NRCS and RCD determine that use of grouted rock is necessary; they will initiate dialogue with the RWQCB first to determine if it will be allowed. Grouted rock would not be used on the bed or bank of a waterway. An example of a typical design from the CDFG California Salmonid Stream Habitat Restoration Manual that could be utilized during implementation of the Grade Stabilization practice is Brush Mattressing (p. VII-79).

Grassed Waterway

6. Grassed waterways are designed to convey the runoff associated with the contributory area along a prescribed slope to avoid erosion caused by the concentrated flow. The waterway may not divert water out of the natural sub watershed.

Fish Stream Improvement

7. The Fish Stream Improvement conservation practice will be designed and implemented in accordance with the California Department of Fish and Game's *California Salmonid Stream Habitat Restoration Manual* or in coordination with NOAA Fisheries and CDFG.
8. No chemically-treated timbers shall be used for grade or channel stabilization structures, bulkheads or other instream structures.

Obstruction Removal

9. Wherever possible, hand labor will be used, however, heavy equipment such as mechanical excavators may be employed in some projects, particularly where the project requires removal of larger items such as cars and appliances. Large objects removed from the area will be lifted out of the area, ensuring the obstruction is kept upright during removal and will not be pulled, dragged, or pushed to minimize potential impacts to the aquatic and terrestrial habitats. If the obstruction is easily accessible and/or an access road is adjacent to the work site, equipment such as a boom would be used to lift the obstruction out of the area. Additional limitations on use of construction equipment are described in the General Project Conditions under *Limitations on Construction Equipment*.

Pipeline

10. Pipeline shall be installed and maintained only when a streambed is dry or dewatered. Trenching associated with this practice must be a minimum of three feet deep. Trenching depth for installation of the Pipeline practice will be deep enough to ensure that scour does not eventually reach the surface of the pipeline.
11. If an open-trench method is used to install the pipeline when working in a waterway, the Operator shall remove and stockpile separately the top six to twelve inches of soils and material. This stockpiled material will be replaced at the end of construction and the stream channel returned to pre-project grade.
12. In the rare circumstance that trenches must be dewatered (i.e. because of unanticipated seepage into the trench), a pump will be used to dewater the trench and water will be pumped to a detention area outside of the channel.
13. No trenching activities would occur during a storm event.

Sediment Basin with or without water control

14. Where water and sediment control basins create marshy conditions and attract nesting birds and other wildlife, maintenance may occur only after August 1st. If construction must occur during this period, a qualified individual approved by USFWS and/or CDFG will conduct pre-construction surveys for bird nests or bird nesting activity in the project area. Bird nesting sites shall be avoided as described above under *Temporal Limitations on Construction*.
15. Sediment basins shall not be constructed in a stream channel or other permanent water bodies. The work may involve grading along one shore of the stream to remove gullies or eroded banks prior to building a streamside basin. Where construction of a sediment basin includes a pipe or structure that empties into a stream (underground outlet), an energy dissipater shall be installed to reduce bank scour.

Streambank Protection

16. No fill will be placed in the flood hazard area unless it is accompanied by an analysis (by a civil engineer) showing that there will be no rise in the base elevation and no off-site impact.

Stream Channel Stabilization

17. Sediment removal will not occur in fish-bearing streams. Sediment removal from non-fish bearing stream channels or ponds may occur if it will improve biological functioning of the stream and restore channel capacity. Sediment removal would occur as a one-time event and not a repeated maintenance practice. Sediment removal may not occur in a flowing stream or standing water. Sediment will not be stored in wetlands or waterways (including floodplains and floodways).

Structure for Water Control

18. Crossings will be consistent with California Department of Fish and Game's "Culvert Criteria for Fish Passage" (May 2002) and National Marine Fisheries Service Southwest Region's "Guidelines for Salmonid Passage as Stream Crossings" (September, 2001). If dewatering in a fish-bearing stream is proposed as part of a project implemented under the permit coordination program, the NRCS/SCCRCD will comply with the terms and conditions outlined in the Biological Opinion, and any subsequent conditions, issued by NOAA Fisheries for this project.

Underground Outlet

19. If a pipe or structure that empties into a stream (underground outlet), a properly sized energy dissipater shall be installed to reduce bank scour and bank erosion.